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| 28116 7590 12/04/2008 WesternGeco L.L.C. Jeffrey E. Griffin 10001 Richmond Avenue HOUSTON, TX 77042-4299 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,644

Applicant(s)

BARAKAT, SIMON

Examiner

SCOTT A. HUGHES

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 38-45 is/are pending in the application.
4a) Of the above claim(s) 8 and 10 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7, 9, 11-17 and 38-45 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 4/25/2005, 9/11/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/11/2008 have been fully considered but they are not persuasive.

Applicant argues that in claims 1 and 38, there are multiple transmitters within each cell, one of which transmits data from the other transmitters and thereby serves as a gateway for the others. Applicant argues that Park does not disclose this limitation. Applicant argues that each cell in Park contains only a single transmitter 16 that receives data only from remote acquisition units 10 and transmits to the central control unit 12. Applicant argues that none of transmitters 16 receives data from another transmitter 16, and therefore none of them transmits data from another transmitter.

These arguments are not persuasive because each transmitter 16 acts as a gateway for the other transmitters of data 10 in each cell. Each remote acquisition unit 10 is associated with the data sources. In the portion of Park cited by the applicant (Fig. 1 and Column 2), Park disclose that "each RAU 10 can receive signal from **and transmit** signals to a central control unit (CCU) 12 using wireless telemetry." Because the RAUs transmit data from data sources, they meet the limitation the transmitters in applicant's claims. Park further notes that each cell has a "transmitter/receiver or cell access node (CAN) 16 acting as a relay between the RAUs 10 and the CCU 12." This CAN 16 is also associated with the data sources and is the transmitter that acts as a gateway in each cell. In Park, the RAUs 10 and CAN 16 are the transmitters in each cell, as both RAUs and CAN transmit data from the data sources towards the central

control unit. The RAUs all transmit data to the CAN, and therefore are transmitters that transmit data to another transmitter. The CAN receives data from the RAU transmitters and transmits this data from the RAUs to the CCU. Therefore, the CAN acts as a gateway for the other transmitters RAU 10 in the cells and meets applicant's claim limitations.

Applicant's amendment to claim 1 is sufficient to overcome the objection to the claim in the previous Office Action.

Applicant's arguments with respect to the restriction are not persuasive as there is no special technical feature and because the multiple species of apparatus and method do not fall within one of the allowable combinations of categories of invention under PCT Rules 13.1 and 13.2.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 11-17, 38, and 40-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Park (6219620).

With regard to claim 1, Park discloses a seismic survey system (abstract). Park discloses a plurality of data sources 10 positioned about an area to be surveyed, each data source being associated with a transmitter (wireless telemetry for DAU) capable of transmitting data (Column 2, Line 21 to Column 3, Line 40) (Fig. 1). Park discloses a plurality of cells 14 each containing a portion of the data sources 10 and their associated transmitters 10, one of the transmitters 16 within each cell also serving as a

gateway for receiving data transmitted from the other data source transmitters 10 within the cell (Column 2, Lines 21-44; Column 3, Lines 2-55) (Figs. 1-3). Park discloses a plurality of independent pathways each independent pathway containing at least one gateway 16 whereby data may be transmitted along each pathway via at least one gateway in that pathway without consolidation of the data (compression can be done at data source 10 before transmission along a pathway, but Park also allows for no compression to be done at all which would simply require a larger bandwidth) (Column 2, Lines 21-44; Column 3, Lines 2-55) (Figs. 1-3).

The "whereby data may be transmitted" clause is essentially a method limitation or statement of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

With regard to claim 2, Park discloses the transmitter wirelessly transmitting data (Column 2, Lines 1-4; Column 3).

With regard to claim 3, Park discloses a computing and storing center (CCU) 12 for receiving the data transmitted along each pathway (Fig. 1) (Column 2, Lines 21-33; Column 3; Column 4, Lines 10-47).

With regard to claim 4, Park discloses at least a pair of relay points along which data is transmitted to the computing and storing center (Columns 3-4) (Figs. 1-3).

With regard to claim 5, Park discloses a fixed base facility 12 to which the data is transmitted (Fig. 1) (Column 2, Lines 21-33; Column 3; Column 4, Lines 10-47).

With regard to claim 7, Park discloses asynchronous transmission (Column 3, Line 26 to Column 4, Line 9).

With regard to claim 11, Park discloses that the distance between gateways of adjacent cells is limited according to transmission licensing constraints (Column 3, Lines 9-40).

With regard to claim 12, Park discloses that the distance between gateways of adjacent cells is limited to improve reliability (Column 2, Line 27 to Column 3, Line 40).

With regard to claim 13, Park discloses that the pathways are substantially linear (Figs. 1-3) (Column 3).

With regard to claim 14, Park discloses that the cells 14 overlap (Fig. 1).

With regard to claim 15, Park discloses that the cells 14 are interleaved (Figs. 1, 3) (Column 2, Line 27 to Column 3, Line 40).

With regard to claim 16, Park discloses that no gateway in a path directly receives from or transmits to more than one gateway (Column 2, Line 27 to Column 3, Line 40).

The "wherein no gateway in a path" clause is essentially a method limitation or statement of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2d 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

With regard to claim 17, Park discloses that at least one cell can also rely data from another cell (Column 3).

With regard to claim 38, Park discloses a method for use in seismic surveying (abstract). Park discloses collecting a plurality of seismic data at a plurality of seismic data sources 10, each data source being associated with a transmitter 10 (wireless transmitter) capable of transmitting the data (Column 2, Line 21 to Column 3, Line 40) (Fig. 1). Park discloses the seismic data sources being organized into a plurality of cells 14 (Fig. 1) (abstract). Park discloses one of the transmitter 16 within each cell also serving as a gateway for receiving data transmitted from other data source transmitters 10 within the cell (Column 2, Lines 21-44; Column 3, Lines 2-55) (Figs. 1-3). Park discloses transmitting the collected data over a plurality of independent pathways to a central location 12 (Fig. 1), each independent pathway containing at least one gateway

whereby data may be transmitted along each pathway via the at least one gateway without consolidation of the data (compression can be done at data source 10 before transmission along a pathway, but Park also allows for no compression to be done at all which would simply require a larger bandwidth) (Column 2, Lines 21-44; Column 3, Lines 2-55) (Figs. 1-3). Park discloses collecting the transmitted seismic data at the central location (Column 2, Lines 21-44; Column 3, Lines 2-55).

With regard to claim 40, Park discloses that the cell definitions are constrained within transmission licensing constraints (Column 3, Lines 9-40).

With regard to claim 41, Park discloses that the distance between cells is constrained to improve reliability (Columns 2-4).

With regard to claim 42, Park discloses that the cell 14 overlap (Fig. 1).

With regard to claim 43, Park discloses that the cells are interleaved (Figs. 1, 3) (Column 2, Line 27 to Column 3, Line 40).

With regard to claim 44, Park discloses at least a pair of relay points along which data is transmitted to the central location (Columns 3-4) (Figs. 1-3).

With regard to claim 45, Park discloses that no gateway in a path directly receives from or transmits to more than one gateway (Column 2, Line 27 to Column 3, Line 40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park as applied to claim 1 above, and further in view of Read (4885724).

With regard to claim 6, Park does not disclose a recording truck through which data is transmitted to the fixed base facility. Read teaches that it is known to use a recording truck at the survey site to record data and send commands to field units (abstract; Columns 7-8) (Fig. 1B). It would have been obvious to modify Park to include a recording truck as taught by Read in order to have a mobile unit that can collect all data from a survey area and can send commands to the equipment in the survey area.

Claims 9 and 39 rejected under 35 U.S.C. 103(a) as being unpatentable over Park as applied to claims 1 and 38 above, and further in view of Longaker (6226601).

With regard to claims 9 and 39, Park does not specifically disclose using frequency division multiplexing. Longaker teaches that it is known in wireless seismic data transmission to use frequency division multiplexing when sending data (Column 3). It would have been obvious to modify Park to use frequency division multiplexing as taught by Longaker in order to be able to reuse transmission frequencies in the cellular groups.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT A. HUGHES whose telephone number is (571)272-6983. The examiner can normally be reached on M-F 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A. H./
Examiner, Art Unit 3663

/Jack W. Keith/
Supervisory Patent Examiner, Art Unit 3663